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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,151	10/31/2003	John D. Hottovy	210330US (CPCM:0020/FLE)	1478

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EXAMINER	
CHEUNG, WILLIAM K	
ART UNIT	**PAPER NUMBER**
1713	

MAIL DATE	DELIVERY MODE
06/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/699,151	HOTTOVY, JOHN D.	
	Examiner	Art Unit	
	William K. Cheung	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 18-22* is/are pending in the application.

4a) Of the above claim(s) *7-11 and 18-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The examiner acknowledges the receipt of the amendment filed March 20, 2007. Claims 1-11, 18-22 are pending.

2. In view of the amendment filed March 20, 2007, the amended claims 7-11, 18-22 are considered non-elected matter. Newly amended claims 7-11, 18-22 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The amended claims 7-11, 18-22 are drawn to method of reducing friction factor of an apparatus drawn to Class 422/132, whereas the original invention is drawn to a polymerization process drawn to Class 526/64.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 7-11, 18-22 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. In view of the restriction set forth, the rejection of Claims 7-8, 10 under 35 U.S.C. 102(e) as being anticipated by Bodart et al. (US 2004/0029727 A1) is withdrawn. Further, the rejection of Claims 9, 11 under 35 U.S.C. 103(a) as obvious over Bodart et al. (US 2004/0029727 A1), is withdrawn. The rejection of Claims 17-22 under 35

U.S.C. 103(a) as obvious over Bodart et al. (US 2004/0029727 A1) in view of Stanley et al. (US 3,244,681), is withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as obvious over Rohlfing et al. (US 3,244,681) for the reason adequately set forth from paragraph 5 of the office action of December 14, 2006.

The examiner acknowledges that Stanley et al. had been used to reference the US patent, US 3,244,681, in previous office actions, simply because the IDS data base on record indicates that Stanley is the first author, while the actual patent indicates that Rohlfing et al. is the first author. To satisfy applicants' demand, the instant office action will use Rohlfing et al. to reference US 3,244,681.

Applicant's arguments filed March 20, 2007 have been fully considered but they are not persuasive. Applicants argue that there is inadequate motivation for one of ordinary skill in art to obtain the specific smoothness as claimed. However, applicants must recognize that Rohlfing et al. (col. 1, line 61-64; col. 6, claim 3) clearly suggest one of ordinary skill to employ a loop reactor having a reactor zone (inner surfaces) with a smooth surface, or a surface as smooth as possible to reduce fouling.

Motivated by the expectation of success of further reducing reactor fouling, it would have been obvious to one of ordinary skill in art to polish all the inner surface area of loop reactor of Rohlfing et al. to obtain a loop reactor having a surface as smooth as possible, which include the roughness values as claimed.

Although Rohlfing et al. do not use the same units or description for measuring smoothness or roughness of the loop reactor disclosed, applicants must recognize that the recited "root mean square surface roughness" is merely a functional language for gauging roughness or smoothness that does not lend itself to patentability. Applicants

must also recognize that the loop reactor of Rohlfing et al. possesses a smooth surface that is inherently measurable in various units, rms, micro inch, or micron, even though the unit for the smoothness measurement is not disclosed. Applicants must recognize that the lack of disclosure on the units of measurement does not mean that the surface of the loop reactor of Rohlfing et al. is not measurable with the units of "micro inches".

In view of the reasons set forth above, the examiner has a reasonable basis that the rationale of the instant rejection is adequate and proper.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William K. Cheung, Ph. D.

Primary Examiner

WILLIAM K. CHEUNG
PRIMARY EXAMINER

June 9, 2007